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# Enterpreneship Transformation in the Context of the Digitization of Business Processes

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**Abstract:** This article examines the transformation of enterprises activity in terms of digitalization of business processes. The rapid and global penetration of technology into business and national economies contributes to the creation of an information civilization and leads to the transformation of economic activity. Globalization and digitalization of the economy transform the key characteristics and objectives of enterprises, the directions of their development and business management processes. Technological innovations create benefits that affect the economic system as a whole and its individual components. In the new conditions of information economy development, the competitive struggle of enterprises is intensifying, the models of enterprise management are changing, and the level of digitalization of business processes is growing. Postmodern digitalization trends are changing the approach to doing business. Enterprises are actively implementing business management systems, using telephony and messengers, accounting systems and other applications that are transforming businesses. In the process of enterprise modernization, information becomes a new factor of production, which gradually replaces other factors of production. Technology continues to be the largest sector in terms of market capitalization. Effective implementation of innovations, digitalization of business processes allows companies to increase their productivity, achieve the required level of competitiveness and take a stable position in the markets.

**Keywords:** *globalization, innovations, digital technologies, post-industrial society, competitiveness of enterprises, business processes.*

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## Introduction

The leading trend in the development of the postmodern reality is the rapid and global penetration of technology into business and national economies, which contributes to the creation of an information civilization and leads to the transformation of economic activity. The ways of conducting transactions and the level of connections between individual economic entities and enterprises are being transformed. Globalization and digitalization of the economy transform the key characteristics and objectives of enterprises, the directions of their development and business management processes.

As a result of the spread of modern information technologies inherent in the current realities of post-industrial society, there is not only a reformatting of the technological paradigm, but also improving all areas of the economy. Technological and digital innovations create benefits that affect the economic system as a whole and its individual components.

Digitization of all areas of management leads to general and special digital shifts, the spread and application of digital management tools, digitalization of business processes of enterprises.

However, special attention should be paid not only to the benefits and improvements of digitization, but also to the risks and challenges that arise today from its proliferation.

Romanchik et al. (2020) note that the implementation of innovations is carried out in conditions of obscurity and fuzziness, which increases the degree of risk of the activities of enterprises, and also affects their economic security. To optimize investment activities, it is important to apply the methodology for selecting innovative projects.

Digital technologies, which have emerged over the past decade, help to improve efficiency and promote the rapid development of enterprises, enhancing their competitiveness. They also demand to change the usual models of management, organizational structures, need to improve information and communication technologies, the formation of new values, delineation and implementation of new strategies and priorities (Gerasymova et al., 2019; Myskovec, 2019; Nerubasska & Maksymchuk, 2020; Nerubasska et al., 2020; Palamarchuk et al., 2020; Sheremet et al., 2019).

Nambisan et al. (2019) mention that digital technologies not only open up new opportunities for entrepreneurs, but also have broader implications for value creation. Rossi et al. (2021) consider new business arrangement principles for state innovation intermediaries that support innovation systems that allow eliminating the need for human participation

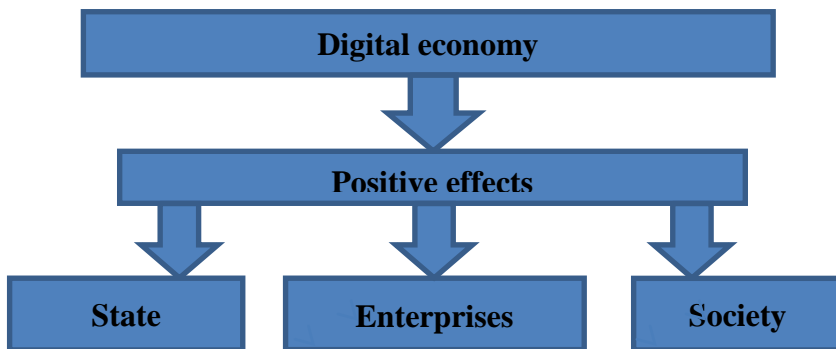
from some of the actions and operations. Elibal and Özceylan (2021) compare industry 4.0 maturity models in the perspective of TQM principles using Fuzzy MCDM methods. Bunduchi et al. (2021) explore the role of entrepreneurs' cognitive frames of the digital product innovation approaches in entrepreneurial firms. Zhang et al. (2019) evaluate the performance of technological production using a multipurpose data traffic sniffer.

In the new conditions of information economy development the competition of enterprises intensifies, models of enterprise management change, the level of digitalization of business processes grows (Akmaeva et al., 2020; Kobets et al., 2018; Kohtamäkia et al., 2019; Kulynych, 2019; Melnichuk & Mamaliga, 2020; Munsamy et al., 2019; Ovchynnikova et al., 2019; Pluzhnikov et al., 2017; Popova et al., 2020; Wedad & Abdulqader, 2020). The purpose of this article is to study the transformation of enterprises that take place in the context of digitalization of business processes.

### **The functioning of enterprises in the aftermath of the digitalization of the economy**

An important feature of the modern trajectory of economic and social development is the ubiquitous introduction and use of digital technologies. Digitization penetrates everywhere, changing the world around us and its perception. The world, on the one hand, is expanding and opening up, on the other hand, competition is increasing and the requirements for the efficiency of enterprises are becoming more severe.

Rudenko (2018) notes the versatility and multifaceted nature of the category "digitalization". The introduction of digitalization is not a mindless pursuit of contemporary fashion by an enterprise, but a balanced and well-thought-out tool for achieving quality growth and progress. Positive effects of digitalization of the economy receive all its main actors - the state, enterprises and society (Figure 1).



**Fig.1** Entities that benefit from the digital economy. Source: Authors' own conception

From the position of the state, in order to achieve high results of digitalization, it is important to develop legislation and rules in order to regulate at the required level the legal side of the interaction of state institutions with citizens and economic units. The digital transformation of the public administration economy is mainly due to the introduction of contemporary channels of communication and contact, which makes it possible to increase its profitability and convenience.

The real sector of the economy, thanks to digitalization, gains superiority in profitability, which allows it to get ahead of foreign competitors and strengthen the position of the national economy in world markets. The introduction of modern efficient methods of production, management and improvement of production safety increases the investment attractiveness of the domestic economy.

Authors Kraus et al. (2018) emphasize the importance for Ukraine of the implementation of the digital economy in Ukraine, which should affect such areas as technological, institutional-economic and production. It is argued that the realities of the digital age are affecting the way we do business.

The requirements for the information technologies used are changing, various automated systems are being applied that allow you to manage sales, service and maintenance, as well as marketing strategies. Business actively uses the capabilities of telephony, instant messengers and social networks. Automation affects and simplifies document management, accounting and personnel management, interaction with customers and counterparties. It is argued that the realities of the digital age are affecting the way we do business. The requirements for the information technologies used are changing, various automated systems are being applied that allow you to manage sales, service and maintenance, as well as marketing strategies.

Business actively uses the capabilities of telephony, instant messengers and social networks. Automation affects and simplifies document management, accounting and personnel management, interaction with customers and counterparties. The digital economy generates the latest digital products and services related to digital platforms and BlockChain, marketing, healthcare, government services, insurance and others affect such spheres of the economy and social life.

Digital development is characterized by revolutionary changes, characterized by instability, instability, "innovation and digital explosions".

Gudz (2018) notes that today, in the digital economy, it is not enough for market leaders to be successful in investing capital and having an

image of a reliable player, but they need to be flexible and ready for changes and business adaptation to new conditions.

The use of digital technologies enables businesses to achieve rapid growth through efficiency, innovation and synergy. Under the influence of improvements in business management models, the use of modern communication opportunities with business partners, the principles of customer orientation, enterprises will have new opportunities to achieve competitive advantages.

Kondarevych et al. (2020) note the relevance of Industry 4.0 for business. In the mode of the enterprise upgrade in today's realities, information, as a new factor of production, gradually replaces the previous factors of production.

Digitalization changes the external and internal environment of enterprises, affecting the level of internal and market competitiveness of enterprises. In order to strengthen competitive advantages, companies need to optimize the choice of areas of innovation, which will significantly reduce the risk of losing market position.

Balocco et al. (2019) note that changing the business model is a process in which new enterprises often participate, especially in dynamic environments such as the digital industry. A major challenge for entrepreneurs trying to reduce the transition between existing and new business models is avoiding loss of income, image and consumer favor.

The global trend of enterprise development is digital transformations, where the functions of enterprises, business processes, business models, business ecosystems, business assets, organizational culture, partnership, business environment are subject to change.

Digital transformation means not only establishment of digital technologies, but is based on them. The role of digitalization and transformation can be traced on the example of market capitalization of the largest companies in the world. According to PwC Global Top 100 companies by market capitalization, technology continues to be the largest sector in terms of market capitalization (\$ 10.5 trillion), as can be seen in Table 1. Global top 100 technology companies recorded an increase of 71% compared to their value as of March 2020.

**Table 1.** *Sector comparison (March 2020 vs March 2021)*

Sector	Change in market capitalisation of current Global Top 100 Mar-2020 to Mar-2021	Market capitalisation Mar-2021 (\$bn)	Number of companies Mar-2021	Market capitalisation Mar-2020 (\$bn)
Consumer Discretionary	65%	5992	17	3639
Telecommunications	36%	1308	7	959
Health Care	25%	3333	16	2669
Industrials	68%	2017	9	1202
Consumer Staples	33%	2035	9	1529
Technology	71%	10483	20	6140
Energy	26%	2686	5	2172
Basic Materials	75%	309	2	177
Financials	33%	3429	14	2571
Utilities	26%	148	1	118

Source: Global Top 100 (2021)

The development of technologies and changes in consumer behavior and requirements, the allocation of information and knowledge as key factors have contributed to changes in market positions of companies and the growth of their market capitalization (Dergachev & Koleshnya, 2020). Technology and online trading companies are becoming market leaders.

The digital transformation of enterprises is associated with the analysis of the current state of their business processes; identifying problems or opportunities; goal setting, strategy formation; the choice of technologies that will meet the existing problems, goals and budget constraints. It should be noted the role of the leader in the transformation process as a controller and leader who must work with staff to avoid resistance of employees to the processes of digital transformation.

## **Features of enterprises under the influence of digitalization of business processes**

The constant evolution of technology in the world creates new production tools and opportunities for enterprises, on the one hand, but on the other hand, an important feature of today is the rapid increase in digital gaps, which leads to asymmetry of enterprises and requires changes in their business models.

Samoldin et al. (2020) consider the features, advantages and problems of modeling as a basis and links for the transformation of business processes. The authors show the special role of business process models in the business structure of a manufacturing enterprise and propose methods for transforming business processes that increase their productivity under the influence of digitalization of production. Application of the method of eliminating bottlenecks in business processes can achieve a cost-effective transformation of business processes.

When evaluating the company's production results, it is necessary to analyze not only the volume and dynamics of products, but also its product range. In a market economy, this structure is determined by the needs of consumers, but its changes affect the economic results of the enterprise.

For the successful operation of the enterprise, its managers and analysts should periodically analyze and adjust the product range policy, use modern decision-making methods in the enterprise. Starting to form a product nomenclature, it is important to determine its optimum, for which it is advisable to use cluster analysis. The advantage of using cluster analysis is the ability at the next stage of optimizing the product range to perform analysis for certain groups of product names (Duplyak et al., 2019).

Nizhnik (2021) identifies a model of goals that connects strategic innovation development with the choice of innovative goals of the enterprise and can be represented as a hierarchical system of innovation goals, the construction process of which is determined by a set of expert-logical operations to identify the type of innovation strategy, innovative development, innovative goals in each of the areas. Based on the analysis of information data of the preliminary analysis, the main variables of the model are determined. The task of building this model is to select the goals of innovative development from the set of possible and distribute them within the main areas.

Holikova et al. (2021) analyze the approaches and methods of qualitative and quantitative analysis of business processes, it is proposed to apply computer-aided design systems. For the analysis of business processes,

indicators of goods (services) and indicators of contentment of consumers and stakeholders are considered.

Under the influence of the high globalization of the world economy, the requirements for business, its management, development of development strategies and decision-making are being transformed. Business processes undergo qualitative and meaningful shifts. These changes in enterprises significantly affect their functions and behavior, causing the need for significant changes in the structure of the enterprise, including the development of strategies. Váchal et al. (2017) analyze the transformation of business processes of industrial enterprises, classifying by levels of profitability and size. The result showed that for micro-enterprises, as well as for profitable enterprises, logistics and marketing, including technological activities, play a special role. In mid-sized enterprises, the discrepancy between marketing and sales, which are not related to profit, is more important. Large enterprises have a more significant influence on scientific and technological development than marketing and sales. For non-profit enterprises, it is also an urgent problem to improve the quality of business processes.

Under the influence of digitalization of business processes, companies have the opportunity to use mechanisms that allow them to interact online with suppliers, partners, consumers and more. The transformation of enterprises is under the influence of the spread of e-commerce, which is actively developing. E-commerce includes e-information exchange, e-capital movement, e-commerce, e-money, e-marketing, e-banking and e-insurance services.

Active digitalization is changing traditional forms of employment and the relationship between enterprises and workers. Businesses are giving up full-time employees in favor of freelancers, stringers and gig-workers. Actively involve outsourcing, which allows to increase the efficiency of the enterprise as a whole and use the released organizational, financial and human resources for the development of new areas.

The digitalization of business processes has created the possibility of "sharing" in a business sense. This system allows you to pay for a product, service or offer for a certain amount of time, without having real property rights. It can be car rental, apartment rental or even industrial equipment.

In the realities of the digital economy, enterprises need to find the characteristics of activities that need improvement and find hidden opportunities for development to function successfully. Effective assimilation and implementation of innovations, digitalization of business



processes allows companies to increase their productivity, achieve the required level of competitiveness and take a stable position in the markets.

## Conclusions

The formation of a globalized information space and the development of a post-industrial society have created a new environment in which enterprises need to rethink the principles of their activities and create new approaches to their functioning. Modern conditions of the digital economy offer enterprises the advantages of open markets, but, at the same time, the conditions of competition among enterprises are intensifying.

Total digitalization is changing the economic environment, which has positive effects on all economic entities, including enterprises. As a result of the spread of contemporary information technologies inherent in the current realities of post-industrial society, there is not only a reformatting of the technological paradigm, but also improving all areas of the economy. Technological and digital innovations create benefits that affect the economic system as a whole and its individual components.

In the upgrade processes of the enterprise in today's realities, information becomes a new factor of production, which gradually replaces other factors of production, and technology continues to be the largest sector in terms of market capitalization.

In order to effectively transform the activities of enterprises, it is necessary to analyze the current state of their business processes and identify problems and opportunities for development, assortment structure and apply the methodology of research "bottlenecks". Based on the analysis, the company will be able to set goals and develop strategies, as well as select technologies that will meet the existing problems, goals, budget and other constraints.

In the assessment of business processes of enterprises it is necessary to carry out an analysis, use the method of determining the cost-effectiveness of automated design based on such quantitative indicators as indicators of goods (services) and indicators of contentment of consumers and stakeholders.

The transformation of enterprises is under the influence of the spread of e-commerce and digital platforms. The digitalization of business processes has created the possibility of "sharing" in the business sense, to improve the recruitment of labor, moving away from the traditional system of full-time staff. To increase the efficiency of enterprises allows the use of outsourcing, which contributes to the rational use of resources for the development of new areas of their activities.

Effective assimilation and implementation of innovations, digitalization of business processes allows companies to increase their productivity, achieve the required level of competitiveness and take a stable position in the markets.

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Anatoliy, Hryhoruk - positive effects of digitalization of the economy analysis, writing;

Liudmyla, Verbivska - data collection and it`s analysis;

Oleksandr, Poprotsky - the dominance of the digitalization of the economy analysis;

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